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ABSTRACT

In order to respond to the changing needs of employers, this study addressed perceptions held by the business community regarding how well the School of Business at a selected university prepares students for the work environment, as well as which criteria employers perceive to be important in hiring graduates. A researcher-developed instrument was used to survey 136 employers of graduates. Both descriptive analyses and analyses of variance were performed on the data. Open-ended questions were also employed. The results indicated that the major perceived strengths of this institution were the quality of its academic programs and the professional attitudes of its graduates, whereas real-life experiences and communication skills were perceived to be lacking in its graduates. Respondents also identified interpersonal and critical thinking skills as major elements needed for success in business. Several recommendations for improving the effectiveness of business programs are included. The "Business Survey Instrument" is included as an appendix. (Contains 23 references.) (JPB)

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ED 395 551

Running Head: PERCEPTIONS OF THE BUSINESS COMMUNITY

Perceptions of the Business Community Regarding Program Effectiveness at a Selected University

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Abstract

In order to respond to the changing needs of employers, this study addressed perceptions held by the business community regarding how well a selected university prepares students for the work environment, as well as which criteria employers perceive to be important in hiring graduates. A researcher-developed instrument was used to survey employers of graduates. Both descriptive analyses and analyses of variance were performed on the data. Open-ended questions were also employed. The results indicate that the major perceived strengths of this institution are the quality of its academic programs and the professional attitudes of its graduates, whereas real-life experiences and communication skills are factors perceived to be lacking in its graduates; interpersonal and critical thinking skills are perceived to be major elements needed for success in business. Several recommendations for improving the effectiveness of business programs are included.

Perceptions of the Business Community Regarding Program Effectiveness at a Selected University

Peter Drucker, in his book Managing for the Future: The 1990s and Beyond (1992), asserted that American educational institutions are not preparing students for the business world. He went on to say that many corporations are developing their own training centers because institutions of higher education are not preparing future employees to meet their needs. He also indicated that, as a result of this trend, the focus of learning for adults is shifting from schools to employers.

Because institutions of higher education will lose a number of potential students to other sources of education if they do not respond to the needs of employers and lifelong learners, it is imperative that they work with businesses and corporations to find out what the current needs of the business world are. It is also important that they continually monitor their programs and perform needs assessments on a regular basis, in order to determine whether the needs of the business world are changing (Anderson & Ball, 1978; Drucker, 1992).

The first step in the process of reviewing business programs is to determine what constitutes an effective program. The Association of American Colleges (1992) characterized effective programs as follows: "Students change; society changes; career opportunities change. Strong programs are dynamic, not static. Faculty members in strong programs actively and regularly seek to learn about their students and respond appropriately to their

changing needs" (p. 5). Perhaps the most beneficial move business schools can make in developing programs that respond to the changing needs of students is to include employers in their decision making.

Chaffee (1990) stressed the importance of viewing employers as customers of institutions of higher education:

> Higher education needs to mature from the "find and keep students" mentality of the 1970s and 1980s to a commitment to serve students and society in the 1990s and beyond. . . .
>
> Like it or not, and whatever else may be in the mission statement, preparing future employees is absolutely fundamental to the purpose of all postsecondary education. The enterprise needs to begin to take employers seriously as important customers. . . .
>
> Educational institutions need to be so committed to serving customers that they do not wait for a tide of complaints to force them to correct deficiencies in services. (pp. 61-62)

In fact, Hendrick (1984) stated that professional educators have an "obligation to evaluate and improve the quality of the programs in which they participate" (p. 5). He also pointed out that programs are open systems that are influenced by both internal and external sources. As a result, educators must take both the students and the businesses that will be utilizing the talents and expertise of those students into consideration when evaluating their programs. In other words, they must develop

educational programs that are fluid and capable of changing as the needs of society change (Arns & Poland, 1980; Cronbach, 1982).

Like Drucker, Barak and Breier (1990) also emphasized the importance of including the business community in the evaluation process. They stated that, although the primary evaluators of an institutional review that is implemented to analyze the direction and content of a program are typically departmental personnel, secondary evaluators include such groups as business and industry. As mentioned earlier, the most efficient way to maintain effective programs is to include organizations that hire business graduates in the evaluation process.

There are several trends currently taking place in American business schools. More schools are beginning to focus on the skills and abilities required for career opportunities in business (Gustafson, Johnson, & Hovey, 1993). They are also becoming more aware that the business environment is constantly changing, requiring that the business programs in schools be reevaluated on a regular basis.

> To meet the challenges of this new and changing environment, the curriculum at our nation's business schools--public and private, secondary and postsecondary, undergraduate and graduate--must provide students with the knowledge, skills, and abilities needed to achieve success in the environment of the 1990's and the 21st century. (Gustafson et al., 1993, pp. 23-24)

Declining enrollments are also expected to have an influence on business schools, forcing them to become more responsive to the needs of the business community. As a result, business leaders are expected to play a more active role in determining the content of business programs. More programs will be designed around the needs of the learner and the business community, focusing on the relevancy and currency of program content. Business schools must focus on the needs of their students and the future employers of their students if they expect to survive in the 21st century (Boyd & Halfond, 1993; Foucar-Szocki & Mitchell, 1993; Stewart, 1992).

The goal of this study was to determine the needs of the business community, in order to evaluate programs offered in the School of Business at a select university, and ultimately determine what improvements should take place in order to make the programs more effective. The study was designed to evaluate programs, based on the perceptions of business and industry, using a predetermined set of criteria. The stance taken was that we live in a changing society, and institutions of higher education must reevaluate academic programs to determine what should be changed in order to respond to a dynamic world.

The literature supports the idea of performing a review of each program every 5 to 7 years (Association of American Colleges, 1992; Hendrick, 1984; Wolf, 1990). This review process is important because career opportunities change, and educational programs must react to both internal and external environments.

"The ultimate consumer[s] of the program or service must first be identified and their needs determined" (Wergin & Braskamp, 1987, p. 97). If the needs of potential "customers" change and institutions of higher education do not accommodate that change, their "products" will decrease in value. Institutions of higher education perform reviews not only to determine whether their goals and objectives are being met, but also to see whether their goals and objectives are still relevant. It is upon this premise that the study was undertaken.

The School of Business at the university participating in the study states, as part of its mission statement, that the School of Business' ongoing commitment to continuous improvement will contribute to the continued success of the School's stakeholders, which include regional communities and their citizens and businesses. It also stipulates the importance of having a business curriculum that is designed to help students meet their broad-based or specific career goals, obtain employment in domestic or international business or government service, or attend graduate or other professional schools. As a result, the programs in the school must be continually monitored and periodically revised, in order to stay current.

The last program review performed in the school was in 1991. The results of the review indicated a need for the various programs offered in the School of Business. However, the review also indicated that as technology continues to change, program objectives should be updated to reflect innovations and trends

that impact on the employability of business school graduates. The major focus of the current study was to evaluate the extent to which this institution's School of Business incorporated such innovations and trends into its business programs, in order to provide information that would allow it to update its programs accordingly, thus maximizing the marketability of its students.

Purpose of the Study

This study addressed perceptions held by the business community regarding how well a selected university prepares students for the work environment. The primary purpose of the study was to investigate perceptions held by the business community regarding the quality of education at this institution and to determine which criteria businesses perceive to be most important in hiring college graduates. This study was also designed to identify factors that contribute to program effectiveness in business programs offered at this institution, as well as components that are missing from, or lacking in, the business programs, as perceived by members of the business community.

A secondary purpose of the study was to compare graduates of this institution with graduates of other institutions of higher education in terms of their preparedness for employment, as perceived by employers. A final purpose was to determine whether the size and type of organization have an impact on the organization's perception of how well prepared this institution's graduates are for the work environment.

The following research questions guided the process of the study.

1. What are the business community's perceptions of the quality of education at this institution in terms of preparing students with

a. the competencies required in their specialized area?

b. technical skills?

c. critical thinking skills?

d. communication skills?

e. mathematical skills?

f. leadership ability?

g. interpersonal skills?

h. a professional attitude?

i. self-confidence?

2. How does the business community rate the level of importance of hiring college graduates with

a. the competencies required in their specialized area?

b. technical skills?

c. critical thinking skills?

d. communication skills?

e. mathematical skills?

f. leadership ability?

g. interpersonal skills?

h. a professional attitude?

i. self-confidence?

3. What do businesses perceive to be the strengths of this institution in preparing students for the work environment?

4. Which skills/competencies do businesses perceive to be lacking in graduates of this institution regarding their preparedness for the work environment?

5. What is the business community's perception of how graduates of this institution compare with graduates of other institutions of higher education in terms of their preparedness for the work environment?

6. Does the size of the business have an impact on its perception of how well prepared graduates of this institution are for the work environment?

7. Does the type of organization have an impact on its perception of how well prepared graduates of this institution are for the work environment?

Limitations of the Study

1. This study is limited by the skills and competencies utilized in the survey instrument.

2. The study is also limited to a survey of those businesses that have hired graduates during a specific time period (1990 through 1994).

3. The third limitation pertains to the scope of the study. Because the information obtained represents data on graduates of a single institution of higher education, there will be a limited ability to generalize from the results of this study.

4. Finally, the study is limited by the extent to which the respondents answered the items on the survey instrument completely and honestly.

Assumptions

The following assumptions were made in the study:

1. Individuals take business courses at institutions of higher education to prepare themselves for the work environment.

2. Individuals take business courses at institutions of higher education with the intent of improving their employability.

3. Respondents to the survey are representative of the population of interest (those businesses that hire graduates of the selected university).

4. All respondents answered honestly.

5. The survey results indicate current needs and trends in the business community.

6. Determining the current needs and trends in business will help universities prepare students for the work environment.

The level of employability of college graduates should be of interest to students, faculty and administrators, and businesses that hire college graduates, because it can have a major impact on the future of each of them. The ultimate goal of this study was to determine which programs needed to be updated in the School of Business, as perceived by the businesses and organizations that hire its graduates, in order to better meet the needs of the business community. The intended result was that

business programs be updated accordingly, thereby improving the employability of business school graduates.

Methodology

Surveys are commonly used to determine whether the needs of the business world are changing, and whether academic programs are continuing to satisfy the needs of students and the business community. Alumni surveys have been utilized in the past to obtain information valuable in upgrading programs in higher education. However, a survey of the business community that hires colleges graduates can provide additional information that can be useful in evaluating the quality and content of higher education programs. It was upon this premise that the study was developed.

Participants

The population of interest in this study consisted of those businesses and organizations that have hired graduates of the School of Business at the university participating in the study. As a matter of clarification, it should be noted that most of the organizations that hire graduates of this institution are from a predominantly rural area, and many do not have another university with a business school within a 150-mile radius of their location.

A purposeful sampling design was used to gather data from the businesses and organizations that have hired graduates of this institution during a 5-year period, from 1990 through 1994. The sample was limited to those businesses and organizations that the institution's Placement Office had on file for the 1990-1994

time period. However, not all graduates returned the standard employment questionnaire sent out by the Placement Office. As a result, there were several graduates for whom no records were available. Information was available on 346 businesses and organizations; these became the sample for the study.

Instrumentation

A researcher-developed survey instrument was utilized in the collection of data. Five-point Likert-type response scales were used to measure employers' perceptions regarding the quality of education at the institution under review, the importance of specific skills and competencies in the work place, and the ranking of graduates of this institution in comparison with graduates of other institutions of higher education. In addition, open-ended questions were employed to determine respondents' perceptions of the strengths of the university and the deficiencies of its graduates, and a checklist format was used to collect demographic information on the respondents. A modified copy of the survey instrument is included in the appendix. For reasons of confidentiality, the copy that appears has been modified to include "<Name of Institution>" in place of the actual name of the university.

To help ensure validity of the instrument, response items previously reported in the literature were included. In addition, the critique process was used to determine which items were unclear or ambiguous, irrelevant, inappropriate, or missing from

the survey instrument, and the instrument was revised accordingly.

Data Collection

A packet containing the survey instrument, a cover letter, and a postage-paid return envelope was mailed to the "Employer/Manager" of each business or organization for whom information was available at the Placement Office. A unique code was placed on each return envelope, for follow-up purposes only, and a follow-up survey was mailed to all nonrespondents 3 weeks later.

Data Analysis

Descriptive analyses were performed to determine the respondents' perceptions regarding the quality of education at this institution, in terms of specific skills and competencies, as well as the level of importance of each of these skills and competencies. In addition, respondents' written comments were grouped and summarized, in order to determine what was perceived by businesses to be the strengths of this institution in preparing students for the work environment, as well as to determine what skills and competencies businesses perceived to be lacking in graduates of this institution regarding their preparedness for the work environment.

Descriptive statistics were also used to determine the business community's perception of how graduates of this institution compare with graduates of other institutions of higher education in terms of their preparedness for the work

world. Finally, analyses of variance were performed to determine the impact of respondents' demographic characteristics on their perceptions of how well prepared graduates of this institution are for the work environment.

The first phase of the data analysis consisted of calculating frequency counts and percentages for items of a demographic nature. The frequencies and percentages were computed for all items in Section IV of the survey instrument (see Appendix). Items 23 and 28 indicated the size and type, respectively, of organization responding. These items were also utilized in the last phase of the data analysis, the analyses of variance. Items 24, 25, and 26 supplied information on the hiring patterns of employers. Item 27 provided insights into the type of person responding to the survey, and Item 29 provided useful information in analyzing where graduates of this institution were locating. Lastly, Item 30 furnished information on the primary functional areas of organizations responding to the survey.

Following the demographic characteristics of respondents, the means and standard deviations were computed for the first 20 items on the survey instrument (Sections I and II). In addition, rankings were computed for Items 1 through 18. The results of the descriptive analyses for these first 18 items (skills/competencies) were used to respond to research questions 1 and 2 regarding the perceived levels of quality and levels of importance, respectively, associated with the items.

More specifically, Items 1 and 2 on the survey instrument were used to answer questions 1(a) and 2(a) regarding specialized areas. Survey Items 3, 4, 16, 17, and 18 were used to answer questions 1(b) and 2(b) in terms of technical skills. Item 5 on the instrument was used to answer questions 1(c) and 2(c) pertaining to critical thinking skills, and Items 6, 7, and 8 were used to answer questions 1(d) and 2(d) concerning communication skills. Questions 1(e) and 2(e) pertained to mathematical skills and were answered with the responses to Item 9 on the instrument, and questions 1(f) and 2(f) regarding leadership ability were answered with the responses to Items 10 and 11 on the questionnaire. Item 12 on the instrument was used in answering questions 1(g) and 2(g) concerning interpersonal skills, Items 13 and 14 were utilized in analyzing questions 1(h) and 2(h) in terms of a professional attitude, and the 15th item was employed in answering questions 1(i) and 2(i) regarding self-confidence.

In addition, research question 5 pertaining to the business community's perception of how graduates of this institution compare with others was answered using the results of the analysis for Item 20. Although not specifically used to answer any research questions, the mean computed for Item 19 on the survey instrument provided an overall rating by employers for graduates of this institution.

Next, summaries of written responses to Items 21 and 22 (Section III), from most frequently occurring to least frequently

occurring, were included in the data analysis. The first summary was employed in responding to research question 3 regarding perceived strengths of this institution, and the second summary was utilized in answering research question 4 regarding competencies perceived to be lacking in graduates of this institution.

Lastly, one-way analyses of variance (ANOVAs) were used to determine if the size of the organization, or the type of organization, had an impact on its responses to Items 1 through 18, using a .05 level of significance. (An alpha level of .05 was used for all statistical tests.) The results of the ANOVAs were utilized in answering research questions 6 and 7. More specifically, for research question 6, ANOVAs were run for each of the first 18 items (first in terms of satisfaction and next in terms of importance) to determine if there was a significant statistical difference in employer perception in any of these areas, based on the size of the organization (Item 23 on the instrument). For research question 7, ANOVAs for these same 18 items (both in terms of satisfaction and in terms of importance) were used to determine if there was a significant difference in employer perception based on the type of organization (Item 28 on the survey instrument).

For the ANOVAs, size and type of organization, respectively, were the independent variables, and the dependent variables were mean scores for Items 1 through 18, respectively. A total of 72 tests were run, 36 for each research question, 18 in terms of

level of satisfaction and 18 in terms of importance. Follow-up specific comparison tests, using Tukey's Studentized Range Test, were used for all significant differences to determine which specific groups differed.

Results

Response Rate

Initially, 346 survey instrument packets were sent. Of these, 99 usable surveys were returned for an initial response rate of 28.6%. Telephone calls were made to local organizations that did not respond to the initial mailing of the survey instrument. In addition, follow-up letters were mailed to nonrespondents 3 weeks after the initial mailing. The follow-up mailing included a copy of the original cover letter and a second copy of the survey instrument. Following the second mailing, 37 additional surveys were returned, resulting in a total of 136 usable surveys or a response rate of 39.3%.

Demographic Characteristics of Respondents

Data associated with the size of organization responding are summarized in Table 1. Organizations employing 10 or fewer fulltime employees comprised 30.1% of the respondents. Organizations employing over 100 fulltime employees made up the next largest category, at 22.1% of the total responses. Organizations composed of 51 to 100 fulltime employees comprised the smallest category, at 13.2%.

As Table 2 shows, over one-fourth (26.5%) of the organizations responding were wholesalers or retailers, whereas

only 6.6% of the respondents were from manufacturing firms. (As noted earlier, the organizations are from a predominantly rural area.) The other category includes the following types of organizations (with number of respondents in parentheses): agricultural (2), educational (2), printing (1), sales (1), insurance (1), publishing (1), entertainment (1), reservations center (1), and hospital (1).

Employers' Ratings of Importance-of/Satisfaction-with Skills/Competencies of College Graduates

Section I of the survey instrument contains 18 items (skills/competencies) that were used to gather data regarding the first research question pertaining to the business community's degree of satisfaction with the quality of education at the university involved in the study. In order to generate responses to the research question, descriptive statistics were computed for Part B (the right-hand column on the questionnaire) of each of these items. Descriptive statistics were also computed for Part A (the left-hand column) of each of these 18 items. These statistics were used to generate responses to the second research question regarding which criteria employers perceive to be most important in hiring college graduates. Respondents rated their level of satisfaction with each item on a Likert-type scale ranging from Very Dissatisfied (1) to Very Satisfied (5), and each item's level of importance on a Likert-type scale ranging from Low Importance (1) to High Importance (5).

The means, standard deviations, number of responses, and rankings for each of the items, in terms of employer satisfaction, are presented in Table 3. The same items are listed by level of importance in Table 4. In addition, the rankings for degree of satisfaction with each item, and the mean level of satisfaction, are presented in Table 4, for comparison purposes.

Employers expressed the highest level of satisfaction with business ethics ($\underline{M}$ = 4.05) in terms of the skills/competencies possessed by graduates of the institution involved in the study. Technical skills (such as the use of computers) followed closely with a mean of 4.00. In contrast, employers indicated the lowest level of satisfaction with written communication skills, with a mean of 3.51. Rated only slightly higher were knowledge of database software and experience in dealing with "real world" problems, with means of 3.53 and 3.55, respectively.

Employers rated interpersonal skills as the skill/competency of highest importance ($\underline{M}$ = 4.68). This item was ranked as third highest in terms of level of satisfaction. Critical thinking skills received the second highest rating in terms of level of importance, with a mean of 4.62. However, this skill/competency was ranked ninth in terms of employer satisfaction. Knowledge of database software received the lowest rating in terms of level of importance, with a mean of 3.16, preceded by knowledge of spreadsheet software and knowledge of word processing software, with means of 3.25 and 3.35, respectively. Knowledge of database software was ranked 17th of

18 items in terms of degree of satisfaction, and knowledge of word processing software and knowledge of spreadsheet software were ranked as 12th and 13th, respectively, in terms of employer satisfaction.

Employers' Perceived Strengths and Weaknesses Regarding Preparedness of Graduates for the Work Environment

Item 21 and Item 22 on the survey instrument contained open-ended questions used in generating responses to research questions 3 and 4, respectively. The responses to Item 21 (perceived strengths of the university in preparing students for the work environment) were split into references made regarding the strengths of the university and references made in terms of strengths of graduates of the university. The responses are grouped and listed, from highest number of comments to lowest, in Table 5. The table is broken into a section on the university and a section on the graduates. The responses to Item 22 regarding the skills/competencies lacking in graduates are also grouped and listed, from highest number of comments to lowest, in Table 6.

In terms of strengths of the university, 9 references were made to the quality of the academic programs offered at the institution. Following closely behind, 8 positive comments were made regarding the collaborative efforts (such as internships) of the university, and 7 comments appeared in reference to the quality of the faculty, facilities, and organizations at the university. Also, 7 positive comments appeared in terms of the type of students that attend this institution. In addition, 5

comments were made in reference to the "healthy, well-rounded" atmosphere of the university, and 4 comments were made regarding its "good ethics."

In terms of strengths of the graduates, the highest number of comments, 25, were made in reference to the nature of this university's graduates (hard working, reliable, easy to train, etc.). In addition, 11 comments were made regarding the graduates' strong computer/technical skills and abilities. In terms of general academic preparedness, 9 positive comments appeared on the surveys, followed closely by 7 comments regarding the graduates' strong interpersonal skills.

Table 6 indicates that a large number of respondents (23) believe that graduates are lacking in the area of real world experience. In addition, the other comments includes a comment regarding the importance of the "ability to solve real world problems." Also, 6 comments were made, both in response to Item 21 and in response to Item 22, regarding the value of internships in preparing students for the real world. The comments from the real world experience category are followed in frequency by comments made in reference to communication skills. In response to Item 22, 14 comments were made regarding the poor communication skills of college graduates. In addition, the other comments section contains 3 comments pertaining to the importance of communication skills.

In response to Item 22, 11 comments appeared indicating that college graduates have an inflated view of what they are worth,

do not want to work their way up the ladder, and are not prepared for the job-seeking process. A similar comment appears in the other comments section indicating that graduates from a variety of colleges and universities are seeking management positions without an understanding of the importance of starting from lower-level positions and working their way into management positions. Other frequently occurring responses to Item 22 included concerns regarding interpersonal skills (5 comments), planning abilities (4 comments), community involvement (3 comments) and computer skills (3 comments).

Employers' Ranking of Graduates in Comparison with Graduates of Other Institutions

Descriptive statistics were computed for Item 20 in order to generate a response to the fifth research question. Respondents ranked graduates of the institution under review, in comparison with graduates of other institutions of higher education, using a Likert-type scale ranging from Much Worse (1) to Much Better (5). In addition, descriptive statistics were computed for Item 19, in order to compute an overall rating of whether employers would hire other graduates of the institution under review. For this item, respondents rated the level of agreement regarding hiring other graduates on a scale ranging from Strongly Disagree (1) to Strongly Agree (5).

The mean and standard deviation computed for Item 20 were 3.33 and 0.67, respectively. These statistics were calculated from 99 responses. Many of the respondents (37) had no other

graduates with whom to compare or were unable to compare for other reasons. (As noted earlier, many of the organizations do not have another university with a business school within a 150-mile radius of their location.) The results indicate that graduates from this university rank somewhat comparably with graduates of other institutions of higher education.

The mean computed for Item 19, in terms of whether employers would hire other graduates of this university, was 4.23 with a standard deviation of 0.87, based on 128 responses, indicating employers would be receptive to hiring other graduates if they had an opening. These results provide an overall picture of how employers view the preparedness of graduates for the work environment.

Impact of Size of Organization on Its Perceptions

Analyses of variance (ANOVAs) were performed to generate responses to research question 6. In addition, item means were computed for Items 1 through 18, based on size of the organization responding to the survey, to provide further information in responding to this research question. The mean level of satisfaction and the mean level of importance for each item, by size of company, are presented in Tables 7 and 8, respectively.

An analysis of variance was performed on each item, in order to determine if there was a difference in the mean level of satisfaction based on the size of the organization responding. The results of the analyses are summarized in Table 9. In

addition, analyses of variance were performed on each item to determine if there was a difference in the mean level of importance, based on the size of the organization. These results are summarized in Table 10.

The results of the ANOVAs indicate there are no significant differences in the means of any of the items, based on size of organization responding. Therefore, no further tests were run to determine which group(s) differed significantly from any other group(s).

Impact of Type of Organization on Its Perceptions

Analyses of variance were also performed to generate responses to research question 7. Item means were again computed for Item 1 through Item 18, both in terms of level of satisfaction and in terms of level of importance, this time based on the type of organization responding to the survey, in order to provide further information in answering the research question. The mean level of satisfaction for each item, by type of organization, is presented in Table 11 and the mean level of importance for each item, by type of organization, is provided in Table 12.

Analyses of variance were performed on each of the 18 items, in order to determine if there was a difference in the mean level of satisfaction, based on the type of organization responding. The results are summarized in Table 13. Additional analyses of variance were performed on each item to determine if there was a

difference in the mean level of importance, based on the type of organization. These results are summarized in Table 14.

The results of the initial ANOVAs indicate a significant difference ($p<.05$) in the mean level of satisfaction by type of organization for Items 14, 17, and 18. Therefore, Tukey's Studentized Range Test was performed on each of these items, in order to determine which group(s) differed significantly from any other group(s) for each item. The results are summarized in Table 15.

These data indicate that respondents from professional organizations have a mean level of satisfaction with Item 17 (knowledge of spreadsheet software) that is significantly lower than the mean level of satisfaction of respondents from governmental agencies, as well as being significantly lower than the mean level of satisfaction of respondents grouped into the other category. These data also indicate that the respondents from professional organizations have a significantly lower mean level of satisfaction with Item 18 (knowledge of database software) than respondents from governmental organizations.

Similarly, the results of the initial ANOVAs indicate a significant difference ($p<.05$) in the mean level of importance, by type of organization, for Item 2, Item 6, and Item 16. Therefore, Tukey's Test was also run on each of these items, to determine which group(s) differed significantly from any other group(s) in the perceptions of the level of importance of each of these items. The results are summarized in Table 16.

These data indicate that respondents from professional organizations rate the level of importance of Item 6 (written communication skills) significantly higher than respondents from wholesale/retail organizations, or respondents from the other category. These data also indicate that respondents from wholesale/retail organizations rate the level of importance of Item 16 (knowledge of word processing software) significantly lower than respondents from non-profit organizations, or from respondents grouped into the other category.

Summary

The results of the study, in terms of the research questions, are presented below.

1. In response to the first research question pertaining to the quality of education at the university under review, in terms of preparing students with specific competencies, employers indicated they were most satisfied with the graduates' professional attitudes, technical abilities, and interpersonal skills. Conversely, employers were least satisfied with the written communication skills of college graduates. As far as competencies in specialized areas are concerned, employers indicated the graduates were well prepared academically, but lacking in the ability to apply this knowledge to real-life situations.

2. Interpersonal and critical thinking skills were deemed to be the most important skills desired of college graduates,

whereas employers indicated that technical and mathematical skills were judged to be much less important.

3. The major perceived strength of this university was the quality of its academic programs, although collaborative efforts with business and industry ranked almost as high.

4. Real world experience was the major factor perceived to be lacking in graduates of this institution.

5. Overall, the graduates were rated somewhat comparably with graduates of other institutions of higher education.

6. The size of the organization responding to the survey had no significant impact on its perceptions.

7. The type of organization responding did have an impact on its perception of how well prepared graduates are for the work environment in terms of proficiency in using unique software packages. More specifically, professional organizations were found to have a significantly lower mean level of satisfaction with graduates' knowledge of database and spreadsheet software (2.85) than the mean level of satisfaction found in governmental agencies (4.00). However, other than knowledge of these specific software packages, which were deemed to be of little importance in comparison with the other skills evaluated, the type of organization responding did not impact the perceptions held regarding the preparedness of graduates for the work environment.

Conclusions

The following conclusions were developed from the analyses of the data and the findings of this study. They apply to

graduates of the university involved in the present study and the businesses and organizations that have hired those graduates during the time period from 1990 through 1994.

1. Success in academic programs may not be a good predictor of success in the real world.

2. Graduates of business schools often enter the work force unprepared with the competencies and experiences needed to apply the academic theories learned in a classroom setting to real-life situations.

3. Graduates of higher education programs are lacking in good communication skills--oral, written, and listening--which are necessary to be effective in their jobs, regardless of the position held.

4. Interpersonal and critical thinking skills are perceived by employers to be major factors in determining the success of college graduates in the work environment.

5. Employers are very satisfied with the business ethics of college graduates, which are deemed to be extremely important in the business community.

6. The data indicate that students have an unrealistic view of the position they can obtain and the salary they can demand upon completion of a college degree.

7. The business community is open to collaborative efforts with institutions of higher education.

Discussion

It is essential that colleges and universities maintain or improve the quality of their academic programs if they are to perform their mission statements effectively and prosper as institutions of higher education (Chaffee, 1990; Drucker, 1992). A report by the Wingspread Group on Higher Education, composed of business leaders, the presidents of a variety of colleges, and others, advised that what is taught in the classroom should be accompanied by "knowledge derived from first-hand experience" (Magner, 1993, p. A26). This correlates with the findings of the current study, which indicate that graduates are lacking in the ability to transfer what is learned in the classroom to real-life situations and are deficient in hands-on, real world experience. The results of the current study also provide evidence that businesses are interested in developing internships or partnerships with higher education that will provide hands-on experience, which correlates well with the Wingspread group's emphasis on integrating first-hand experience into academic programs.

Recent literature supports the concept of building partnerships with business and industry (Johnstone, 1993; Reich, 1993; Sheckley, Lamdin, & Keeton, 1992). Governor Wilder (1990), of the Commonwealth of Virginia, stated that it is not easy to adapt to the "economic, political, and cultural changes sweeping the world" (p. 42). He suggested that partnerships with business

and industry should benefit both "students and society as a whole" (p. 46).

A report by the Association of American Colleges stated that general education must be much more than "simple exposure to different fields of study" (Magner, 1994, p. A20). According to the report, colleges are becoming aware of the importance of requiring students to "build their critical thinking and writing skills in many different courses across the curriculum" (p. A20). This group's findings are similar to the findings of the current study, which indicate that critical thinking and writing skills are of utmost importance to employers when hiring college graduates.

Shibli (1992) expanded on this idea by stating that writing can increase learning in quantitative classes. He pointed out that in a typical statistics course, students are taught to manipulate numbers and arrive at a result, whereas the process of analyzing and interpreting the statistical results is the real key to understanding statistics. He pointed out that when students write, they learn and internalize and "most important, engage in critical thinking. To be able to apply what they learn in the classroom to real-life situations, students need to see what methods to use and when; writing is an essential component of this learning process" (p. 124).

Sheckley, Lamdin, and Keeton (1992) emphasized that, in order to establish and maintain employability, individuals must also "develop basic verbal and numeric literacy skills,

interpersonal and team-work skills, adaptive skills, cognitive skills, and lifelong learning skills" (p. 27). Their focus on developing verbal literacy skills and interpersonal and team-work skills relates well to the findings of the current study, which indicate that both interpersonal skills and speaking skills are extremely important in establishing and maintaining employability.

The current study also found that success in academic programs may not be a good predictor of success in the real world. Similarly, Cappelli (1992) found that grades are poor predictors of job performance, which, he added, may indicate that college performance is largely irrelevant to performance in the workplace, or that grades are not good indicators of ability. These data suggest that alternative forms of assessment may be required in an educational setting.

Bonstingl (1992), in applying Deming's Total Quality Management principles to education, arrived at similar conclusions regarding the educational system in the United States. He stated, "We are taught to recite what we hear or read without critically interacting. . . . The information leaves no tracks, and independent thinking skills are not developed" (p. 67). He also advised that the use of grades as assessment symbols should be rethought, and suggested that tests be used as prescriptive and diagnostic tools rather than as a form of assessment.

Along the same line of thinking, Johnstone (1993) predicted that there will be less emphasis on traditional degrees in the future and more emphasis on the validation of competence. A current trend in higher education focuses on the use of portfolios as a form of assessment. A portfolio provides actual samples of the work that students have done, and allows employers to see examples of applicants' writing abilities and other skills prior to making employment decisions. This can furnish a clearer picture of an applicant's skills and abilities than a letter grade can.

In summary, educators should find ways to integrate communication, critical thinking, and interpersonal skills throughout the curriculum. In addition, traditional grading should be supplemented with portfolios, or some alternative form of assessment. Finally, colleges and universities would do well to provide students with a liberal education which emphasizes preparing students for the workplace. Successfully developed partnerships with business and industry can help in this process and can work to the advantage of all--student, business, and university.

Recommendations

Recommendations for Action

The following recommendations apply to the institution involved in the current study. However, a review of literature indicates that the results of this study are similar to the

results of other studies. Therefore, other institutions of higher education would probably benefit from many of these suggestions.

1. Build partnerships with area businesses. This would provide students with real-life experiences, furnish input from business and industry into the decision-making process in higher education, and provide business schools with the opportunity to improve the relevancy of the programs they offer.

2. Require that all business students participate in internships their senior year, in order to integrate real-life experiences with their classroom learning. This would complement the academic education of students and would not only better prepare them for employment, but also improve their employment opportunities by providing the "experience" that employers so often look for in the hiring process.

3. Incorporate more collaborative learning activities into business courses. Only by working with others and learning to compromise can students develop the interpersonal skills that are so critical to success.

4. Integrate writing assignments and presentations throughout the business curriculum, rather than assuming that the combination of a speech class and writing class will be sufficient to prepare students with the communication skills needed in the work world.

5. Integrate communication and critical thinking skills into all upper-level classes. In these classes, students should be provided with real-life situations and be required to thoroughly

analyze the situations from different perspectives, communicating their findings in a clear, concise, and cohesive manner.

6. Incorporate portfolios (or a similar form of assessment) into the evaluation process. The portfolios, or other assessment tools, should be maintained for each student in upper-level business courses in the student's major.

7. Continue to emphasize the importance of business ethics throughout the business curriculum.

8. Offer career counseling to students to prepare them for the interview process and to give them a realistic idea of the career opportunities that will be available to them and the salaries they can expect when they complete their degrees.

Recommendations for Further Study

The current study focused on employers that have hired business graduates of a selected university.

1. The current study should be modified and expanded to include all area employers, not just those that have hired graduates of this institution.

2. The current study should be modified and expanded to include areas outside of business.

3. Studies should be conducted to determine the perceptions held by the business community regarding program effectiveness at other universities.

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Appendix

Business Survey Instrument

BUSINESS SURVEY REGARDING
THE PREPAREDNESS OF <Name of Institution> GRADUATES
FOR THE WORK ENVIRONMENT

Section I

Please rate the level of importance in your organization of the skills/competencies listed below. Circle a response between "1" and "5" on the left side of each skill/competency listed below, indicating the level of importance at some point between **LOW** (1) and **HIGH** (5). Also, please rate the skill levels/competencies of <Name of Institution> graduates employed in your organization by indicating to the right of each item your level of satisfaction with <Name of Institution> graduates. Circle a response between "1" and "5" indicating the extent of your satisfaction at some point between **VERY DISSATISFIED** (1) and **VERY SATISFIED** (5).

IMPORTANCE LOW				HIGH	SKILLS/COMPETENCIES:	VERY DISSATISFIED				VERY SATISFIED	Unable to Rate
1	2	3	4	5	1. **Competencies** required in their **specialized** area (accounting, marketing, etc.).	1	2	3	4	5	6
1	2	3	4	5	2. **Experience** in dealing with **"real world"** problems.	1	2	3	4	5	6
1	2	3	4	5	3. **Technical skills** (integrating a motor/ technical skill, such as the use of a computer, with other abilities).	1	2	3	4	5	6
1	2	3	4	5	4. **Ability to adapt to rapidly changing technologies** (computers, etc.).	1	2	3	4	5	6
1	2	3	4	5	5. **Critical thinking skills** (ability to evaluate situations and generate appropriate decisions/solutions).	1	2	3	4	5	6
1	2	3	4	5	6. **Written communication skills**.	1	2	3	4	5	6
1	2	3	4	5	7. **Speaking communication skills**.	1	2	3	4	5	6
1	2	3	4	5	8. **Listening skills**.	1	2	3	4	5	6
1	2	3	4	5	9. **Mathematical skills** (quantitative ability).	1	2	3	4	5	6
1	2	3	4	5	10. **Creative thinking skills** (innovative, new ideas).	1	2	3	4	5	6
1	2	3	4	5	11. **Leadership ability** required in their job.	1	2	3	4	5	6
1	2	3	4	5	12. **Interpersonal skills** (ability to work with others).	1	2	3	4	5	6
1	2	3	4	5	13. **Business ethics** (in accordance with formal or professional rules of right and wrong).	1	2	3	4	5	6
1	2	3	4	5	14. **Professionalism** (the conduct, aims, or qualities that characterize a profession).	1	2	3	4	5	6
1	2	3	4	5	15. **Self-confidence** required in their job.	1	2	3	4	5	6
1	2	3	4	5	16. **Knowledge** of **word processing** software.	1	2	3	4	5	6
1	2	3	4	5	17. **Knowledge** of **spreadsheet** software.	1	2	3	4	5	6
1	2	3	4	5	18. **Knowledge** of **database** software.	1	2	3	4	5	6

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Section II (A)
Please indicate the degree to which you agree or disagree with the following statement. Circle a response between "1" and "5" indicating the extent to which you agree at some point between **STRONGLY DISAGREE** (1) and **STRONGLY AGREE** (5).

	STRONGLY DISAGREE				STRONGLY AGREE	Unable to Respond
19. **I would hire other graduates of <Name of Institution> if I had an opening.**	1	2	3	4	5	6

Section II (B)
Please answer the following question with a response at some point between **MUCH WORSE** (1) and **MUCH BETTER** (5). If you have no other graduates with whom to compare, skip this question and go on to Section III.

	MUCH WORSE				MUCH BETTER	Unable to Respond
20. **How do graduates of <Name of Institution> compare with graduates of other institutions of higher education?**	1	2	3	4	5	6

Section III
(If more space is needed, use the back side of this page.)

21. What do you perceive to be the **strengths** of <Name of Institution> in preparing students for the work environment?

22. What skills/competencies do you feel are **lacking** in graduates of <Name of Institution>?

Section IV

Please place an "X" next to the statement that best describes your organization.

23. Approximately how many people are employed fulltime in your organization?

___ 10 or fewer ___ 11 - 20 ___ 21 - 50 ___ 51 - 100 ___ over 100

24. Approximately how many graduates of <Name of Institution> does your organization interview annually?

___ 0 - 2 ___ 3 - 6 ___ 7 - 10 ___ 11 - 20 ___ more than 20 ___ don't know

25. Approximately how many graduates of <Name of Institution> are currently on your payroll?

___ 0 - 2 ___ 3 - 6 ___ 7 - 10 ___ 11 - 20 ___ more than 20 ___ don't know

26. Approximately what percent of your annual new hires are graduates of <Name of Institution>?

___ 0-5% ___ 6-15% ___ 16-25% ___ 26-35% ___ 36-50% ___ 51-100%
___ don't know

27. What is your relationship to the graduate(s)?

___ Employer ___ Supervisor/Manager ___ Other (please specify) _____

28. Which of the following categories best describes your type of organization?

___ Government ___ Non-profit Organization ___ Service
___ Manufacturing ___ Professional ___ Wholesaler/Retailer

___ Other (please specify) _____

29. In which state is your organization located? _____

30. Please rank the top three areas in which your organization has hired graduates of <Name of institution> in the past (using a "1" to indicate the primary functional area, and "2" and "3" to rank the second and third functional areas).

___ Accounting ___ Fitness Management ___ International Business
___ Administrative System ___ General Business ___ Management
___ Economics ___ Industrial Management ___ Management Information Systems
___ Finance ___ Industrial Technology ___ Marketing

___ Other _____

___ Unable to rank

Thank you for taking the time to complete this survey.
Your participation will help us prepare our students to better serve your needs.

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Table 1

Respondents' Size of Organization

Size[a]	n	P[b]
10 or fewer	41	30.1
11 - 20	24	17.6
21 - 50	23	16.9
51 - 100	18	13.2
Over 100	30	22.1
Total	136	100.0

[a]Size is based on number of fulltime employees.

[b]Due to rounding, total percentage may not equal 100.0.

Table 2

Respondents' Type of Organization

Type	n	P
Wholesaler/Retailer	36	26.5
Professional	20	14.7
Service	19	14.0
Government	15	11.0
Financial	14	10.3
Non-Profit	12	8.8
Manufacturing	9	6.6
Other	11	8.1
Total	136	100.0

Table 3

Employers' Level of Satisfaction with Skills/Competencies

Rank	Item	M	SD	n[a]
1	Business ethics	4.05	0.88	118
2	Technical skills	4.00	0.81	119
3	Interpersonal skills	3.97	0.94	123
4	Specialized competencies	3.93	0.65	113
5	Professionalism	3.92	0.90	121
6	Technology adaptability	3.91	0.86	115
7	Mathematical skills	3.90	0.81	117
8	Self-confidence	3.83	0.82	120
9	Critical thinking skills	3.75	0.90	117
10	Speaking skills	3.74	0.85	122
11	Leadership ability	3.71	0.90	115
12	Word processing knowledge	3.70	0.92	99
13	Spreadsheet knowledge	3.64	0.94	91
14	Listening skills	3.63	0.88	121
15	Creative thinking skills	3.61	0.93	114
16	Real world experience	3.55	0.91	119
17	Database knowledge	3.53	0.93	89
18	Writing skills	3.51	0.93	122

[a]Number of Responses.

Table 4

Items' Importance, with Corresponding Satisfaction Levels

Rank	Item	Importance			Satisfaction	
		M	SD	n[a]	Rank	M
1	Interpersonal skills	4.68	0.51	127	3	3.97
2	Critical thinking skills	4.62	0.56	126	9	3.75
3	Business ethics	4.61	0.59	125	1	4.05
4	Professionalism	4.58	0.63	127	5	3.92
5	Listening skills	4.57	0.57	127	14	3.63
6	Speaking skills	4.52	0.61	127	10	3.74
7	Self-confidence	4.40	0.63	124	8	3.83
8	Creative thinking skills	4.32	0.75	127	15	3.61
9	Real world experience	4.30	0.85	126	16	3.55
10	Specialized competencies	4.28	0.75	126	4	3.93
11	Writing skills	4.24	0.74	127	18	3.51
12	Technology adaptability	4.22	0.81	126	6	3.91
13	Leadership ability	4.20	0.83	127	11	3.71
14	Technical skills	4.17	0.82	126	2	4.00
15	Mathematical skills	3.87	0.89	126	7	3.90
16	Word processing knowledge	3.35	1.03	126	12	3.70
17	Spreadsheet knowledge	3.25	1.18	122	13	3.64
18	Database knowledge	3.16	1.15	122	17	3.53

[a]Number of Responses.

Table 5

Respondents' Perceived Strengths of the University in Preparing Students for the Work Environment

Comments on the University		Comments on the Graduates	
Type	No.	Type	No.
Academic programs	9	Nature of graduate	25
Collaborative efforts	8	Computer/tech. skills	11
Faculty/facilities/clubs	7	Academic preparedness	9
Type of students	7	Interpersonal skills	7
Environment (size,loc'n)	6	Self-confidence	2
Atmosphere	5	Communication skills	2
Ethics	4	Other strengths	7

Table 6

Respondents' Perceived Skills/Competencies Lacking in Graduates

Type of Comments	Number of Comments
Real world experience	23
Communication skills	14
Employment expectations/preparedness	11
Interpersonal skills	5
Planning abilities	4
Community involvement	3
Computer skills	3
Creative thinking skills	2
Other weaknesses	18

Table 7

Level of Satisfaction, by Size of Organization

Item[a]	Overall M	Mean by Size[b]				
		1-10	11-20	21-50	51-100	101+
1	3.93	3.88	4.11	3.83	4.00	3.85
2	3.55	3.51	3.76	3.56	3.53	3.46
3	4.00	3.97	4.40	3.78	4.06	3.86
4	3.91	3.83	4.15	3.76	4.07	3.86
5	3.75	3.68	4.17	3.50	3.81	3.71
6	3.51	3.62	3.45	3.22	3.41	3.64
7	3.74	3.73	3.87	3.78	3.53	3.74
8	3.63	3.73	3.78	3.44	3.41	3.65
9	3.90	3.91	4.14	3.84	3.82	3.81
10	3.61	3.53	3.81	3.28	3.80	3.67
11	3.71	3.67	3.70	3.44	4.00	3.81
12	3.97	3.95	3.87	4.00	4.06	4.00
13	4.05	4.19	4.27	4.00	3.75	3.88
14	3.92	4.08	3.91	3.83	3.76	3.85
15	3.83	3.70	3.81	3.78	3.94	4.00
16	3.70	3.79	3.94	3.53	3.71	3.48
17	3.64	3.30	4.00	3.60	3.93	3.52
18	3.53	3.25	3.94	3.53	3.75	3.35

[a]A full description of each item appears in Appendix.

[b]Based on number of fulltime employees.

Table 8

Level of Importance, by Size of Organization

Item[a]	Overall M	Mean by Size[b] 1-10	11-20	21-50	51-100	101+
1	4.28	4.00	4.52	4.35	4.31	4.37
2	4.30	4.43	4.43	4.17	4.13	4.24
3	4.17	4.17	4.52	3.96	4.25	4.03
4	4.22	4.06	4.29	4.13	4.56	4.27
5	4.62	4.57	4.85	4.57	4.56	4.60
6	4.24	4.19	4.33	4.30	4.25	4.20
7	4.52	4.59	4.48	4.65	4.38	4.43
8	4.57	4.73	4.57	4.57	4.50	4.43
9	3.87	3.78	4.29	4.00	3.73	3.67
10	4.32	4.43	4.57	4.13	4.31	4.13
11	4.20	4.11	4.24	4.13	4.31	4.27
12	4.68	4.70	4.67	4.74	4.63	4.63
13	4.61	4.65	4.70	4.65	4.75	4.41
14	4.58	4.70	4.67	4.65	4.63	4.30
15	4.40	4.53	4.45	4.39	4.33	4.27
16	3.35	3.39	3.57	3.22	3.44	3.20
17	3.25	3.12	3.71	3.04	3.40	3.13
18	3.16	3.09	3.57	2.96	3.33	3.00

[a]A full description of each item appears in Appendix.

[b]Based on number of fulltime employees.

Table 9

Group Differences in Perceived Level of Satisfaction Based on Size of Organization

Item[a]	df	SS	MS	F-Value	Pr > F
1	4	1.0828	0.2707	0.62	0.6496
2	4	1.2001	0.3000	0.35	0.8447
3	4	4.7469	1.1867	1.85	0.1247
4	4	2.1882	0.5470	0.73	0.5763
5	4	4.5520	1.1380	1.40	0.2397
6	4	2.6772	0.6693	0.77	0.5474
7	4	1.1690	0.2922	0.40	0.8115
8	4	2.3430	0.5857	0.74	0.5657
9	4	1.6237	0.4059	0.61	0.6552
10	4	3.6821	0.9205	1.05	0.3849
11	4	2.8475	0.7119	0.86	0.4883
12	4	0.4282	0.1070	0.12	0.9761
13	4	4.0385	1.0096	1.30	0.2738
14	4	1.6312	0.4078	0.50	0.7393
15	4	1.6502	0.4126	0.60	0.6631
16	4	2.8764	0.7191	0.84	0.5004
17	4	6.3967	1.5992	1.84	0.1280
18	4	6.2020	1.5505	1.86	0.1249

Note. Results are listed for model, only. No items have means that are significantly different at $p<.05$.

[a]A full description of each item appears in Appendix.

Table 10

Group Differences in Perceived Level of Importance Based on Size of Organization

Item[a]	df	SS	MS	F-Value	Pr > F
1	4	4.4181	1.1045	2.00	0.0989
2	4	1.9511	0.4878	0.67	0.6167
3	4	4.3387	1.0847	1.62	0.1743
4	4	3.1903	0.7976	1.23	0.3026
5	4	1.2935	0.3234	1.02	0.4007
6	4	0.4212	0.1053	0.19	0.9452
7	4	1.2097	0.3024	0.79	0.5315
8	4	1.5804	0.3951	1.22	0.3052
9	4	5.8123	1.4531	1.87	0.1205
10	4	3.6648	0.9162	1.65	0.1660
11	4	0.7888	0.1972	0.28	0.8932
12	4	0.2159	0.0540	0.20	0.9399
13	4	1.6837	0.4209	1.21	0.3119
14	4	3.2181	0.8045	2.06	0.0903
15	4	1.2382	0.3096	0.76	0.5547
16	4	2.2860	0.5715	0.53	0.7135
17	4	6.7989	1.6997	1.23	0.3024
18	4	5.8810	1.4702	1.12	0.3524

Note. Results are listed for model, only. No items have means that are significantly different at $p<.05$.

[a]A full description of each item appears in Appendix.

Table 11

Level of Satisfaction, by Type of Organization

	Overall	Mean by Type[b]							
Item[a]	M	Govt	Manu	NonP	Prof	Serv	Retl	Finl	Othr
1	3.93	4.23	3.78	3.89	3.56	4.00	3.92	3.92	4.20
2	3.55	3.54	3.11	3.50	3.28	3.78	3.57	4.09	3.50
3	4.00	4.14	3.89	4.00	3.59	3.94	4.07	4.08	4.40
4	3.91	4.78	3.56	3.75	3.71	4.00	3.85	4.10	4.40
5	3.75	4.00	3.11	3.64	3.44	4.06	3.82	3.82	3.90
6	3.51	3.29	3.56	3.50	3.17	3.58	3.62	3.64	3.80
7	3.74	4.08	3.56	3.58	3.61	3.89	3.72	3.83	3.50
8	3.63	3.77	3.38	3.50	3.33	3.79	3.76	3.58	3.80
9	3.90	4.08	3.89	3.40	3.53	3.94	4.07	3.80	4.40
10	3.61	4.08	3.55	3.54	3.17	3.76	3.59	3.67	3.67
11	3.71	3.85	3.50	3.58	3.12	4.00	3.71	4.00	4.11
12	3.97	4.29	3.78	3.67	3.72	3.95	3.90	4.25	4.40
13	4.05	4.23	3.75	3.70	3.94	4.00	3.96	4.33	4.60
14	3.92	4.36	3.37	3.55	3.72	4.00	3.76	4.25	4.40
15	3.83	4.14	3.89	3.50	3.56	3.06	3.75	3.82	4.10
16	3.70	3.85	3.14	3.80	3.38	3.67	3.78	3.50	4.40
17	3.64	4.00	3.14	3.78	2.85	3.69	3.72	3.60	4.33
18	3.53	4.00	3.14	3.44	2.85	3.58	3.59	3.60	4.00

[a]A full description of each item appears in Appendix.

[b]Government, Manufacturing, Non-Profit, Professional, Service, Wholesaler/Retailer, Financial, Other.

Table 12

Level of Importance, by Type of Organization

Item[a]	Overall M	Mean by Type[b]							
		Govt	Manu	NonP	Prof	Serv	Retl	Finl	Othr
1	4.28	4.54	4.44	4.50	4.56	4.06	4.12	3.93	4.36
2	4.30	3.92	4.38	4.58	4.50	4.29	4.42	3.64	4.55
3	4.17	4.08	4.44	4.33	3.94	4.00	4.03	4.21	4.82
4	4.22	4.08	4.67	4.25	3.83	4.19	4.21	4.21	4.73
5	4.62	4.46	4.44	4.83	4.67	4.44	4.79	4.50	4.55
6	4.24	4.31	3.89	4.42	4.72	4.35	4.00	4.43	3.82
7	4.52	4.46	4.11	4.33	4.67	4.59	4.61	4.64	4.36
8	4.57	4.31	4.44	4.75	4.89	4.53	4.55	4.50	4.55
9	3.87	3.85	3.89	3.67	3.87	3.94	3.82	4.15	3.82
10	4.32	4.31	4.33	4.75	4.44	4.18	4.42	3.86	4.09
11	4.20	4.00	4.33	4.33	4.06	4.29	4.30	4.07	4.09
12	4.68	4.46	4.67	4.92	4.61	4.76	4.67	4.71	4.64
13	4.61	4.54	4.67	4.73	4.61	4.71	4.53	4.71	4.55
14	4.58	4.61	4.33	4.83	4.61	4.65	4.52	4.50	4.64
15	4.40	4.39	4.22	4.58	4.33	4.56	4.45	4.25	4.27
16	3.35	3.15	3.22	4.00	3.39	3.69	2.88	3.21	4.00
17	3.25	3.08	3.33	3.82	3.24	3.40	2.79	3.46	3.73
18	3.16	3.15	3.33	3.55	3.12	3.40	2.70	3.23	3.64

[a]A full description of each item appears in Appendix.

[b]Government, Manufacturing, Non-Profit, Professional, Service, Wholesaler/Retailer, Financial, Other.

Table 13

Group Differences in Perceived Level of Satisfaction Based on Type of Organization

Item[a]	df	SS	MS	F-Value	Pr > F
1	7	4.7238	0.6748	1.63	0.1359
2	7	7.2868	1.0410	1.25	0.2796
3	7	5.1662	0.7380	1.12	0.3528
4	7	5.4983	0.7855	1.06	0.3974
5	7	8.3816	1.1974	1.49	0.1773
6	7	4.3078	0.6154	0.70	0.6717
7	7	3.5176	0.5025	0.68	0.6876
8	7	3.8324	0.5475	0.69	0.6835
9	7	8.6503	1.2358	2.00	0.0614
10	7	6.7774	0.9682	1.11	0.3623
11	7	10.5536	1.5077	1.94	0.0696
12	7	6.8924	0.9846	1.12	0.3546
13	7	6.8118	0.9731	1.26	0.2763
14	7	11.7855	1.6836	2.23	0.0369*
15	7	5.8882	0.8412	1.26	0.2767
16	7	9.6652	1.3807	1.72	0.1151
17	7	16.1476	2.3068	2.95	0.0082*
18	7	11.9738	1.7105	2.16	0.0466*

Note. Results are listed for model, only.

[a]A full description of each item appears in Appendix.

*$p < .05$.

Table 14

Group Differences in Perceived Level of Importance Based on Type of Organization

Item[a]	df	SS	MS	F-Value	Pr > F
1	7	6.4537	0.9220	1.68	0.1208
2	7	10.7934	1.5419	2.28	0.0324*
3	7	7.7804	1.1115	1.69	0.1185
4	7	7.6131	1.0876	1.73	0.1083
5	7	2.9147	0.4164	1.34	0.2398
6	7	10.2999	1.4714	2.93	0.0068*
7	7	3.1583	0.4512	1.21	0.3051
8	7	3.3758	0.4823	1.52	0.1657
9	7	1.7637	0.2520	0.30	0.9514
10	7	6.7833	0.9690	1.78	0.0965
11	7	2.1309	0.3044	0.46	0.8873
12	7	1.5438	0.2205	0.81	0.5769
13	7	0.7951	0.1136	0.31	0.9478
14	7	1.6903	0.2415	0.58	0.7677
15	7	1.7384	0.2483	0.60	0.7557
16	7	19.7995	2.8285	2.96	0.0068*
17	7	14.4769	2.0681	1.53	0.1642
18	7	12.4339	1.7763	1.37	0.2239

Note. Results are listed for model, only.

[a]A full description of each item appears in Appendix.

*$p < .05$.

Table 15

Differences in Level of Satisfaction

Based on Type of Organization

Item[a]	M	Type		M	Type	Dif.
14		*** No significant differences ***				
17	2.85	Professional	—	4.00	Government	-1.15
17	2.85	Professional	—	4.33	Other	-1.48
18	2.85	Professional	—	4.00	Government	-1.15

[a]A full description of each item appears in Appendix.

Table 16

Differences in Level of Importance

Based on Type of Organization

Item[a]	M	Type		M	Type	Dif.
2		*** No significant differences ***				
6	4.72	Professional	—	4.00	Wholesale/Retail	0.72
6	4.72	Professional	—	3.82	Other	0.90
16	4.00	Non-Profit	—	2.88	Wholesale/Retail	1.12
16	4.00	Other	—	2.88	Wholesale/Retail	1.12

[a]A full description of each item appears in Appendix.